



**UNITED STATES ENVIRONMENTAL PROTECTION
AGENCY
REGION 10**

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OFFICE OF
ECOSYSTEMS, TRIBAL
AND PUBLIC AFFAIRS

December 14, 2015

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE
Washington, D.C. 20426

Dear Secretary Bose:

We have reviewed the Federal Energy Regulatory Commission Draft Environmental Impact Statement for the Juneau Hydropower, Inc. Sweetheart Lake Hydropower Project near the city of Juneau, Alaska (FERC Project No. 13563) (EPA Project 14-0061-FRC). We are submitting comments in accordance with our responsibilities under the National Environmental Policy Act and Section 309 of the Clean Air Act.

The Draft EIS examines Juneau Hydropower, Inc.'s (Applicant) original license proposal, the FERC Staff proposal and the No Action alternative. The Applicant's proposal consists of a 19.8-megawatt hydropower project, including a dam approximately 100 feet tall at the natural outlet of 5.4-mile-long, 0.6-mile-wide Lower Sweetheart Lake that flows into Sweetheart Creek, approximately twenty miles south of Juneau, Alaska. The proposed project would occupy 2,058.24 acres of federal lands within the Tongass National Forest and generate an average of about 116,000 megawatt-hours of energy yearly. The Staff proposal is similar to the Applicant's proposal but with modifications, primarily involving monitoring requirements. The No Action alternative is a No Build alternative.

Based on our review, we have rated the Draft EIS EC-2 (Environmental Concerns-Insufficient Information). We believe additional information and clarification is needed to substantiate project need. We have concerns about potential impacts to waters of the U.S. and the lack of Clean Water Act Section 404 and 404-related mitigation information in the DEIS. We also believe the EIS should include analysis of greenhouse gas emissions and should incorporate additional adaptive management strategies within the monitoring program. More information regarding these concerns and our recommendations are provided in the enclosed Detailed Comments (Enclosure 1).

We acknowledge the electricity generated by this project may displace power currently generated by diesel-powered generators with a renewable energy source which, after construction and initial operation, will have minimal greenhouse gases emissions. We believe this will be a benefit overall to the environment in terms of improved local air quality, reduced generation of greenhouse gases in the long-term and reduced risk of diesel spills. We also acknowledge that Sweetheart Lake is a stocked fishery that supports a popular, recreational fishery, which is not anticipated to be negatively impacted by the project according to the National Marine Fisheries Service and the Alaska Department of Fish and Game.

We believe the Staff Proposal appears to be the environmentally preferable alternative due to its increased monitoring requirements and additional efforts to "better protect water resources, wetlands, vegetation, wildlife, recreation, and visual resources during construction and operation". We support the selection of this alternative, with the modifications and recommendations identified below.

Thank you for the opportunity to provide comments on the Draft EIS. Please contact me at (206) 553-1601 or littleton.christine@epa.gov, or Jennifer Curtis of my staff in Anchorage at (907) 271-6324 or curtis.jennifer@epa.gov, if you have questions or would like additional information regarding our comments.

Sincerely,



Christine B. Littleton, Manager
Environmental Review and Sediments Management Unit

Enclosure:

1. EPA Region 10 Detailed Comments for the FERC Sweetheart Lake Hydroelectric Project Draft EIS

ENCLOSURE 1

EPA REGION 10 DETAILED COMMENTS ON THE FERC SWEETHEART LAKE HYDROPOWER PROJECT DRAFT EIS

Project Need

The Draft EIS indicates peak demand on the Juneau electric system grid is projected to be 89.3 MW in 2024. It is unclear whether this estimate includes Greens Creek Mine (7.5 MW), which is already connected to the local grid. Should Kensington Mine be connected to the grid, an additional 10 MW is projected to be needed, for a total of 99.3 MW. There is also an assumption of "moderate population growth and a high cost for diesel and other petroleum fuels" used for this projection, which may no longer be valid given the current state fiscal situation, as well as the recent, dramatic decrease in fuel prices.

Currently, the Juneau system has a 102.8 MW generated through hydropower and 84.8 MW generated through diesel-power. It is unclear how the proposed project will displace any diesel-generated electricity, since the existing hydropower capacity is already greater than the projected need, including Kensington's power needs, in 2024. We do recognize that there are potential, but speculative, additional future power needs, such as the cruise ship docks, which are also discussed in the Draft EIS but outside of the 89.3 MW projection.

We recommend that the Final EIS provide additional information or clarification regarding the total existing and projected supply for the future, and the inclusion of this project with projected power addition or displacement. We also recommend that the most recent population and fuel cost estimates be incorporated in the need assumptions. Finally, if there are existing hydropower projects that will be taken offline during the lifetime of this project, this information should be discussed as well.

Clean Water Act Section 404 and 404 Mitigation

We recommend that Section 1.3.2 of the Final EIS contain information pertaining to Section 404 of the Clean Water Act. We believe the applicability of Section 404 is substantial for this project and should be identified as one of the relevant "statutory and regulatory requirements" discussed in Section 1.3. Understanding of Section 404 is particularly important for the consideration of 404-related mitigation and compensation for this project, which should be discussed as a separate part of the mitigation section, or as an appendix of the Final EIS.

Adaptive Management

We are pleased with the extensive monitoring and sampling proposed for the both the Applicant's and Staff proposals. We do, however, believe that additional adaptive management components for certain plans and operational procedures are important for ensuring expected results for the life of the project. For example, while we support the Staff's proposal to "modify the Acid Rock Drainage Contingency Plan (Acid Rock Plan) to include a provision to provide detailed plans for acid-producing spoil storage, disposal, treatment, and monitoring measures based on geotechnical study results and prior to beginning construction," we believe it is also important for the plan to include a post-construction component to address unanticipated drainage should it be encountered. Similarly, we encourage adaptive management components

be incorporated into the requirement to report any deviation in in-stream flows to FERC within 10 days. We support those plans which currently include adaptive management components, such as the Staff's proposal for evaluation after 5 years of continuous water quality monitoring to determine if continuous monitoring is required after the 5-year period.

Greenhouse Gas Emissions

During the first years of filling, the decaying organic matter within the inundation zone can release large amounts of greenhouse gases, namely carbon dioxide and methane. Additionally, large earth-moving infrastructure projects regularly result in emissions of substantial quantities of GHGs.

On February 18, 2014, the Council on Environmental Quality issued revised draft guidance to Federal Agencies on analyzing the effects of GHGs emissions and climate change when describing the environmental effects of a proposed agency action in accordance with NEPA.¹ CEQ's revised draft guidance defines GHG emissions in accordance with Section 19(i) of *Executive Order 13514 Federal Leadership in Environment, Energy, and Economic Performance* to include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorcarbon (HFCs), perfluorcarbon (PFCs), and sulfurhexafluoride (SF₆). Because CO₂ is the reference gas for climate change based on its potential to absorb heat in the atmosphere, measures of non-CO₂ GHGs should be reflected as CO₂-equivalent (CO₂-e) values. We recommend that the greenhouse gas emissions attributable to the project be disclosed and evaluated in the Final EIS in accordance with CEQ guidance.

¹ See <https://www.whitehouse.gov/administration/eop/ceq/initiatives/nepa/ghg-guidance>.